

**REMOVAL ACTION WORK PLAN
NEWTSON IRON & METAL INC.**

**901 W. Marquette St.
Ottawa, Illinois 61350**

**Prepared for
NICOR GAS**

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TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	SCRAP METAL REMOVAL	1
3.	SOIL SAMPLING	5
3.1	Soil Screening and Soil Removal Procedures	5
3.2	Soil Confirmation Sampling Protocol	7
4.	SOIL CLEANUP OBJECTIVES	8
5.	CONTRACTOR AND SCHEDULE	8

FIGURES

1-1	SITE LOCATION MAP	2
2-1	SITE LAYOUT MAP	3
3-1	SAMPLE LOCATION MAP	6

1. INTRODUCTION

This Removal Action Work Plan is being prepared by Nicor Gas ("Nicor") to satisfy its obligations under Paragraph 3 of the Unilateral Administrative Order issued by the United States Environmental Protection Agency (U.S. EPA) to Nicor on September 6, 2000 pursuant to the Agency's authority under Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"). Specifically, this Work Plan provides for the implementation of certain response activities to address potential impacts associated with the handling of mercury type gas regulators at Newton Iron & Metal scrap yard.

Newton Iron & Metal Inc. ("Newton") is located at 901 W. Marquette Street in Ottawa, Illinois. Figure 1-1 depicts the site location. The site is located in a mixed residential/commercial area. Single family homes are located to the north and west. Commercial area is located to the east. The area to the south has not yet been identified.

2. SCRAP METAL REMOVAL

Illinois EPA and U.S. EPA representatives recently conducted an inspection at the Newton facility. During that inspection, Illinois EPA representatives identified certain discrete scrap metal storage areas where mercury-type regulators from Nicor facilities were stored. Two adjacent piles, measuring approximately 10 feet x 10 feet each, were identified as the only areas where Nicor scrap metal has been stored.

The following procedures will be utilized for the removal action, working in close cooperation with the site owner so as to not unduly interfere with the facility's normal operation.

- Establish an exclusion zone, as depicted in Figure 2-1.
- Establish decontamination area for personnel as depicted in Figure 2-1. The location of the vehicle decontamination zone will be determined based on site conditions.
- Record mercury vapor levels around the perimeter of the exclusion zone with a Jerome Meter.
- Triple-line the ground area next to the scrap metal pile with plastic sheeting. The scrap metal will be transferred from the pile to a 1 yard lined box on the plastic sheeting during sorting activities.
- A second lined one yard box will be placed on top of the plastic ground cover approximately ten feet to the side of the existing scrap metal pile. This box will be for the storage of any mercury-type regulators found in the pile.
- Manually transfer metal and regulators to plastic sheeting for sorting. Personnel will wear level C PPE.

- Monitor the perimeter of the exclusion zone for mercury vapor every 20 minutes with a Jerome Meter. Record readings and wind direction.

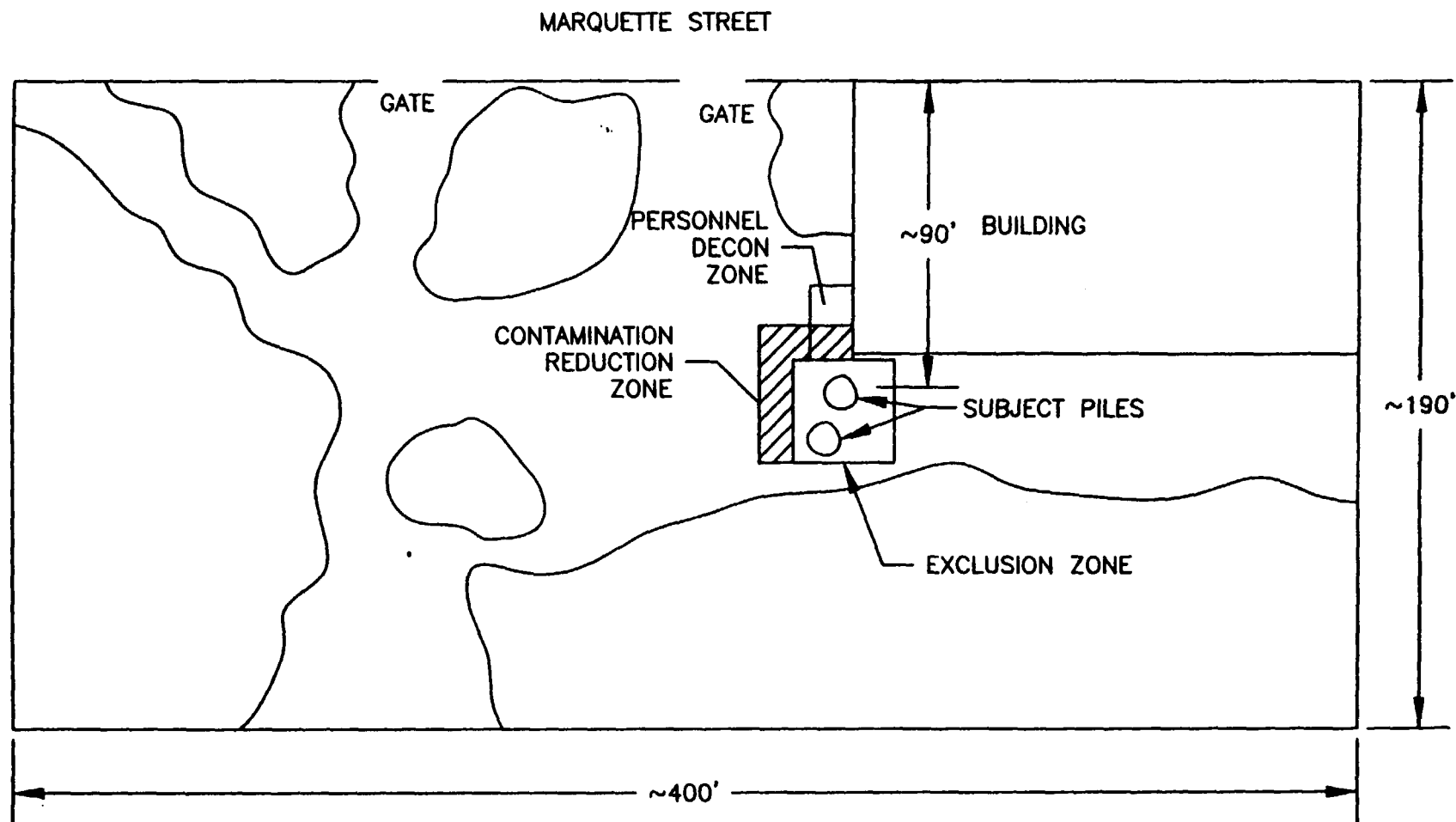


FIGURE 2-1
SITE LAYOUT MAP
NEWTSON IRON & METAL INC.
OTTAWA, ILLINOIS



NOT TO SCALE

Figure 1-1

Figure 2-1

- Remove all mercury-type regulators from the scrap pile and place into the designated 1 yard box.
- At the direction of Illinois EPA and/or U.S. EPA, carefully remove mercury-type regulators from the one yard boxes and open mercury end cap to see if mercury is present, and provide either Agency with a sample, if so desired. Contractor will provide appropriate staging area and equipment for opening regulators, including secondary containment.
- Record the total number of mercury regulators found.
- If any mercury-type regulators are identified in the scrap pile, appropriately screen the scrap metal 1 yard box for mercury vapors with a Jerome Meter. If mercury vapor is less than 0.010 mg/cu m, the scrap will remain at the site for the scrap metal dealer. If the mercury vapor level is over 0.010 mg/cu m, when the wind speed across the top is less than 5 mph, the box will be landfilled as solid waste.
- If no visible mercury beads are present on the top plastic ground liner at the conclusion of the scrap metal transfer operation, place all plastic used in the same low level mercury debris box. Label all debris drums with the yellow hazardous waste label "RQ, Hazardous Waste Solid, n.o.s., 9, NA3077, PGIII, (D009), and generator ID name, address, and number." ¹ / If mercury beads are visible, place in one yard box with regulators for transport to a high level mercury disposal facility.
- Label all boxes containing mercury-type regulators and any plastic with visible mercury with the yellow hazardous waste label, and complete the information, as above. However, the DOT shipping name will be "RQ Waste Mercury contained in manufactured articles, 8, UN2809, PG III (D009)."
- Screen any bobcat/fork truck tires/tracks with a Jerome Meter for mercury vapors and visually inspect for mercury beads. If any readings are above 0.010 mg/cu m, or mercury beads observed, decontaminate with a mercury decontamination solution.
- All decontamination water from vehicle and PPE decontamination area as well as decontamination water generated during soil sampling will be collected in a 55 gallon drum, tested, and disposed of as hazardous waste or special waste based on TCLP mercury results. Disposal will be at Heritage's Indianapolis aqueous facility.
- All visible mercury will be vacuumed from the ground utilizing a mercury vacuum equipped with a mercury trap, a post carbon filter, and a HEPA filter (to trap any mercury vapor and dust).

¹ /The generator and associated identification number will be the Nicor Ottawa facility at 1629 Champlain, Ottawa, Illinois 61350, ID# ILD113823850.

In the alternative, areas with mercury beads will be hand shoveled and placed in the same container with regulators for retorting.

- The site owner will be instructed as to what mercury-type regulators look like and will continue to look for them. Should such a regulator be discovered at the yard in the future, the site owner will be instructed to call Nicor immediately. Nicor will inform the U.S. EPA and Illinois EPA, then mobilize to the site to remove any mercury-type regulators and conduct further site reconnaissance in the specific area where such a regulator is discovered.
- All scrap metal removed from the site will be landfilled as a non-hazardous solid waste.

3. SOIL SAMPLING

3.1 Soil Screening and Soil Removal Procedures

After all of the scrap metal and miscellaneous debris from the designated area have been removed, and any visible mercury vacuumed up, a 10-ft by 10-ft sampling grid will be set up, as depicted in Figure 3-1.

The following procedure will be utilized:

- Set out a 10-ft by 10-ft grid with flagging, over the entire area, labeling the flags from 1 to 3 and A to C, as depicted in Figure 3-1.
- Using the Jerome meter, with particulate filter, take mercury vapor readings at each flagged area under a plastic cup after a minimum of five minutes. Record results. At any location where a positive reading is obtained, a second reading will be taken. The average result will be utilized.
- At any flagged location where a reading above 0.010 mg/cu m is obtained, a backhoe will remove 6 inches of soil from the 10-ft by 10-ft area, and the area will be re-tested with the Jerome Meter. This procedure will continue until all flagged areas achieve 0.010 mg/cu m mercury vapor.
- The excavated soil will be loaded into a lined rolloff box.
- The flags will remain in place at the completion of the Jerome meter screening.
- At the completion of this phase, the soil rolloff box will be placed in an area subject to owner's and U.S. EPA's approval. The box will be sampled, and covered.
- The soil sample will be analyzed to determine if it will be disposed of as solid waste or hazardous waste.

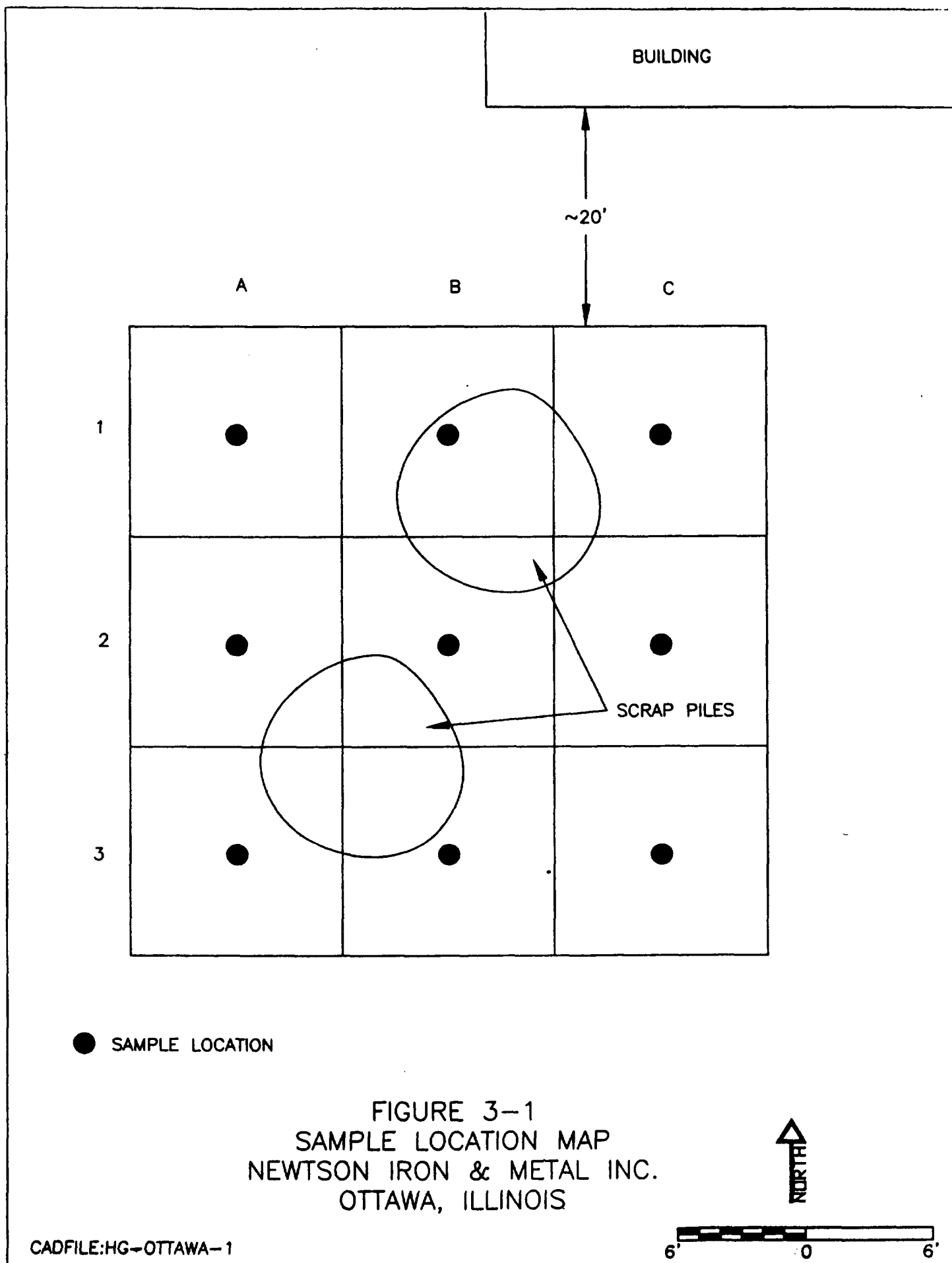


Figure 3-1

3.2 Soil Confirmation Sampling Protocol

The following protocol will be used for confirming that the mercury has been successfully removed from the site.

- From each row (in the east to west direction, or 1 to 3 on Figure 3-1), a soil sample from the location having the highest final Jerome Meter reading will be sampled from 0 to 6 inches using a hand trowel and pick ax and shovel if the ground is too firm. The soil will be placed into a stainless steel mixing bowl, mixed thoroughly, and placed in four 4-ounce clean laboratory jars for analysis of total mercury, TCLP mercury, pH, and soil moisture.
- One sample from each row will be collected for analysis.
- All samples will be labeled with the site, date, time, and sample grid location, and initialed by sampler. All samples will be placed in individual plastic bags and sealed to avoid cross contamination, and immediately placed in a cooler with ice. Care will be taken in filling the coolers to avoid breakage. A chain of custody will accompany the samples to the laboratory.
- Between samples, the sampling equipment will be cleaned with the following protocol:
 - Alconox Wash with potable water
 - Tap water dip rinse
 - Mercury decontamination solution
 - Tap water dip rinse, separate container
 - Distilled water spray rinse
- The samples will be shipped to Test America's Bartlett Laboratory for analysis of total mercury using method SW846 – 7471A, which has a method detection limit of 0.04 mg/kg. TCLP mercury will be tested by SW846 – Method 7470A, which has a method detection limit of 0.0002 mg/L. In addition, the soil pH and percent solids will be measured.
- Duplicates will be collected for mercury on one in ten samples. One field blank and one trip blank will be collected daily when conducting confirmation sampling.
- Test America will provide results four working days from receipt. This will allow time for retesting if the results are outside of the calibration range, and the completion of the necessary QA/QC checks as described in the QAPP.
- Any confirmation samples above the objectives will necessitate further soil removal and additional confirmation testing.

4. SOIL CLEANUP OBJECTIVES

The Newton facility is located in an residential and commercial area. Response actions conducted by Nicor at the site will be deemed complete upon satisfaction of appropriate remediation objectives for mercury as provided at 35 Ill. Adm. Code Part 742. For reference purposes, the Tier 1 remediation objective for mercury are as follows:

Ingestion

Residential	23 mg/kg
Industrial/Commercial Objective (I/C)	610 mg/kg
Construction Worker Objective (CW)	61 mg/kg

Inhalation

Residential	10 mg/kg
Industrial/Commercial Objective (I/C)	540,000 mg/kg
Construction Worker Objective (CW)	52,000 mg/kg

Soil migration to ground water

TCLP/SPLP 0.002 mg/L

or

<u>Soil pH</u>	<u>Total Mercury, mg/kg</u>
4.5 to 4.74	0.01
4.75 to 5.24	0.01
5.25 to 5.74	0.03
5.75 to 6.24	0.15
6.25 to 6.64	0.89
6.65 to 6.89	2.1
6.90 to 7.24	3.3
7.25 to 7.74	6.4
7.75 and above	8.0

Nicor shall utilize the remediation objectives provided above or establish site specific standards or remediation strategies consistent with the requirements of 35 Ill. Adm. Code Part 742.

5. CONTRACTOR AND SCHEDULE

Heritage Industrial Services, L.L.C. will be the removal contractor under the direction of Huff & Huff, Inc., consultant to Nicor Gas. Superior Special Services, Inc. in Port Washington, WI and/or Salesco in Phoenix, AZ will be the two retort facilities. The soil will be shipped to EQ landfill in Belleville, Michigan if it is a hazardous waste. If the soil is not a hazardous waste it will be shipped to EQ or Waste Management's CID facility. The scrap metal will also be shipped to one of the

following landfills as a non-hazardous waste. Waste Management's CID facility in Calumet, Illinois; Republic Services Inc.'s facility in Three Oaks, Michigan; or Allied's facility in Newton County, Indiana. Test America will conduct the analytical work.

Based upon the coordination requirements, the Contractor will mobilize to the site no later than three days after authorization from U.S. EPA and site access is secured. The scrap metal removal is expected to take two days, the soil screening/soil removal two days, and confirmation sampling one day. Analytical results will be obtained in three business days. Thus, the following schedule is planned:

	<u>Business Days</u>
- Authorization to Proceed	0
- Mobilize to Site	3
- Complete Scrap Metal Removal	4
- Soil Screening and Soil Removal	6
- Confirmation Testing	7
- Analytical Results Received	10
- Remobilize to Site	13
- Complete Soil Removal	14
- Confirmation Testing	15
- Analytical Results Received	18

Thus, approximately three weeks will be needed to complete the work at this facility. A Remedial Action Completion Report will be prepared and issued within six weeks of completion of the removal action. This will allow time for returned manifests from processing at a retort facility and from landfilling.